

Notice of Allowability

Application No.

10/733,327

Examiner

Thomas J. Dailey

Applicant(s)

NEUSTADTER ET AL.

Art Unit

2452

- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Amendment entered 3/30/2010.
2. ☒ The allowed claim(s) is/are 24-43.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
(a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
(b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
Identifying Indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☒ Interview Summary (PTO-413),
Paper No./Mail Date 20100615.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

/TD/
Patent Examiner, Art Unit 2452

/THU NGUYEN/
Supervisory Patent Examiner, Art Unit 2452

DETAILED ACTION

1. Claims 24-43 were added by the amendment filed on 3/30/2010.
2. Claims 1, 2, 4-10, and 12-23 were cancelled by the amendment.
3. Claims 24-43 are pending.

EXAMINER'S AMENDMENT

4. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.
5. Authorization for this examiner's amendment was given in a telephone interview with Victoria Donnelly on June 15, 2010. The amendment amends method claim 32 to have a similar scope to that of the other independent claims.

The application, specifically claim 32, has been amended as follows:

32. (Currently amended) A method of verifying continuity of paths in a wavekey network comprising a plurality of nodes interconnected through a plurality of multi-channel links, each node having a node controller, the method comprising:

providing a link interface for each multi-channel link among said plurality of multi-channel links;

sending optical signals occupying channels of different wavelength bands of said each multi-channel link, said optical signals comprising control signals occupying a control channel and data signals occupying data channels of said each multi-channel link;

sending, over each data channel of said each multi-channel link, data of a respective connection originating from an access port of a source node and terminating at an access port of a destination node;

modulating said each data channel by a respective wavekey of at least one dither tone;

distributing, by said node controller, nodal information to each other node, said nodal information comprising:

an identifier of a respective connection traversing each data channel of each link emanating from said each node;

an identifier of a central wavelength of said each data channel; and

an identifier of a current wavekey modulating said central wavelength;

and

communicating to a network controller, from a gateway node selected from among said plurality of nodes, nodal information pertinent to said each node to enable said network controller to determine continuity of said respective connection.

Allowable Subject Matter

6. Claims 24-43 are allowed.
7. The following is an examiner's statement of reasons for allowance: The prior art fails to disclose or suggest all limitations of the claimed invention with particular emphasis a plurality of links, each link connecting inter-nodal interfaces of a respective node pair and supporting optical signals occupying channels of different wavelength bands, said channels comprising: a control channel carrying control signals; and data channels, each data channel carrying data of a respective connection from an access port of a source node to an access port of a destination node, said each data channel further modulated by a respective wavekey of at least one dither tone.
8. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

- (a) US Pub. No. 2003/0058496- "Topology discovery in optical WDM networks"
 - (b) US Pat. 6,707,795 – "Alarm correlation method and system"
 - (c) US Pat. 7,469,102 – "Wavelength-division-multiplexing passive optical network utilizing fiber fault detectors and/or wavelength tracking components"
10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas J. Dailey whose telephone number is 571-270-1246. The examiner can normally be reached on Monday thru Friday; 9:00am - 5:00pm.
11. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thu Nguyen can be reached on 571-272-6967. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

12. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/T. J. D./
Examiner, Art Unit 2452

/THU NGUYEN/
Supervisory Patent Examiner, Art Unit 2452